

REMARKS

Claims 1-30 are pending and are rejected. Claims 8, 24, 25, and 29 are amended. Reconsideration and allowance of Claims 1-30 are respectfully requested.

Claim Amendments

Claim 8 is amended to correct typographical errors, and Claim 25 is amended to improve clarity. No new matter is entered.

Claim Rejections under 35 USC §102

Claims 1-4, 6-9, 11-13, 16-17, 19-20, and 22-30 are rejected under 35 USC §102(b) as being anticipated by Pereira (USP 6,324,087). Applicant respectfully traverses these rejections.

Claims 1-4, 6-9, and 11

Applicant's Claim 1 recites:

A content addressable memory (CAM) device for comparing a search key to data values stored therein, comprising:

a plurality of CAM blocks, each including an array of CAM cells to store a predetermined range of data values;

means for extracting a selected portion of the search key in response to a select signal; and

means for selectively enabling each CAM block in response to a comparison between the selected portion of the search key and the predetermined range of data values for the corresponding CAM block.

Pereira does not disclose or suggest "means for extracting a selected portion of the search key in response to a select signal," as recited in Applicant's Claim 1. There is no language in Pereira that discloses or suggests using a select signal to extract a selected portion of the search key. Therefore, Claim 1 is not anticipated by Pereira.

The Office Action seems to equate extracting address bits A[13:12] from Pereira's 14-bit address with the recitation of "extracting a selected portion of the

search key in response to a select signal" in Applicant's Claim 1. The referenced address bits A[13:12] in Pereira are address bits that address storage locations in Pereira's CAM array; they are not part of the search key, and they are not extracted from the search key. Accordingly, Applicant respectfully requests the Examiner to withdraw the rejection of Claim 1.

Claims 2-4, 6-9, and 11 depend from Claim 1 and therefore distinguish over the cited references for at least the same reasons as Claim 1.

Claims 12-13, 16-17, 9-20, and 22-23

Applicant's Claim 12 recites:

A content addressable memory (CAM) device for comparing a search key to data stored therein, comprising:

a plurality of CAM blocks, each including an array of CAM cells to store a predetermined range of data values;

a parsing circuit having an input to receive the search key and having an output to provide a selected portion of the search key in response to a select signal; and

a plurality of block select circuits, each configured to enable a corresponding CAM block if the selected portion of the search key falls within the predetermined range of data values for the corresponding CAM block.

Pereira does not disclose or suggest a parsing circuit "having an input to receive the search key and having an output to provide a selected portion of the search key in response to a select signal," as recited in Applicant's Claim 12. There is no language in Pereira that discloses or suggests using a select signal to extract a selected portion of the search key. Therefore, Applicant's Claim 12 is not anticipated by Pereira.

Claims 13, 16-17, 19-20 and 22-23 depend from Claim 12 and therefore distinguish over the cited references for at least the same reasons as Claim 12.

Claims 24-28

Applicant's Claim 24, as amended, recites:

A method of operating a content addressable memory (CAM) device including a plurality of CAM blocks each for storing a predetermined range of data values to be compared with a search key, comprising:

extracting a selected portion of the search key in response to a select signal;  
and

for each CAM block,

determining whether the selected portion of the search key falls within the predetermined range of data values stored in the CAM block; and  
selectively enabling the CAM block in response to the determining.

As discussed above with respect to Claim 1, Pereira does not disclose or suggest "extracting a selected portion of a search key in response to a select signal," as recited in Applicant's Claim 24, and therefore Claim 24 is not anticipated by Pereira.

Note that the amendments to Claim 24 include language appearing in original Claim 1, and therefore the amendment of Claim 24 does not necessitate a new search.

Claims 25-28 depend from Claim 24 and therefore distinguish over the cited references for at least the same reasons as Claim 24.

Claims 29-30

Applicant's Claim 29, as amended, recites:

A method of selectively enabling a plurality of CAM blocks each for storing a predetermined range of data values, comprising:

extracting a selected portion of a search key in response to a select signal;  
for each CAM block, determining whether the selected portion of the search key falls within the predetermined range of data values for the corresponding CAM block;  
and

generating a plurality of block enable signals in response to the determining.

As discussed above with respect to Claim 1, Pereira does not disclose or suggest “extracting a selected portion of a search key in response to a select signal,” as recited in Applicant’s Claim 29, and therefore Claim 29 is not anticipated by Pereira.

Claim 30 depends from Claim 29 and therefore distinguishes over the cited references for at least the same reasons as Claim 29.

Claim Rejections under 35 USC §103 in view of Stark

Claims 5, 14-15, and 21 are rejected under 35 USC §103(a) as being unpatentable over Pereira (USP 6,324,087) in view of Stark (USP 6,633,953). Applicant respectfully traverses these rejections.

Claim 5 depends from independent Claim 1, and therefore distinguishes over the cited references for at least the same reasons as Claim 1.

Claims 14-15 and 21 depend from independent Claim 12, and therefore distinguish over the cited references for at least the same reasons as Claim 12.

Claim Rejections under 35 USC §103 in view of King

Claims 10 and 18 are rejected under 35 USC §103(a) as being obvious over Pereira (USP 6,324,087) in view of King (USP 7,003,625). Applicant respectfully traverses these rejections.

Claim 10 depends from independent Claim 1, and therefore distinguishes over the cited references for at least the same reasons as Claim 1.

Claim 18 depends from independent Claim 12, and therefore distinguishes over the cited references for at least the same reasons as Claim 12.

CONCLUSION

In light of the above remarks, it is believed that Claims 1-30 are in condition for allowance and, therefore, a Notice of Allowance of 1-30 is respectfully requested. If the Examiner's next action is other than allowance as requested, the Examiner is requested to call the undersigned at (415) 379-6143.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. BOX 1450, Alexandria, VA 22313-1450, on June 22, 2006.

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Name

  
Signature